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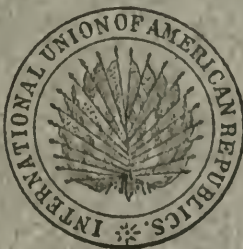
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CHILE

GENERAL DESCRIPTIVE DATA

PREPARED IN JUNE

1909



WASHINGTON

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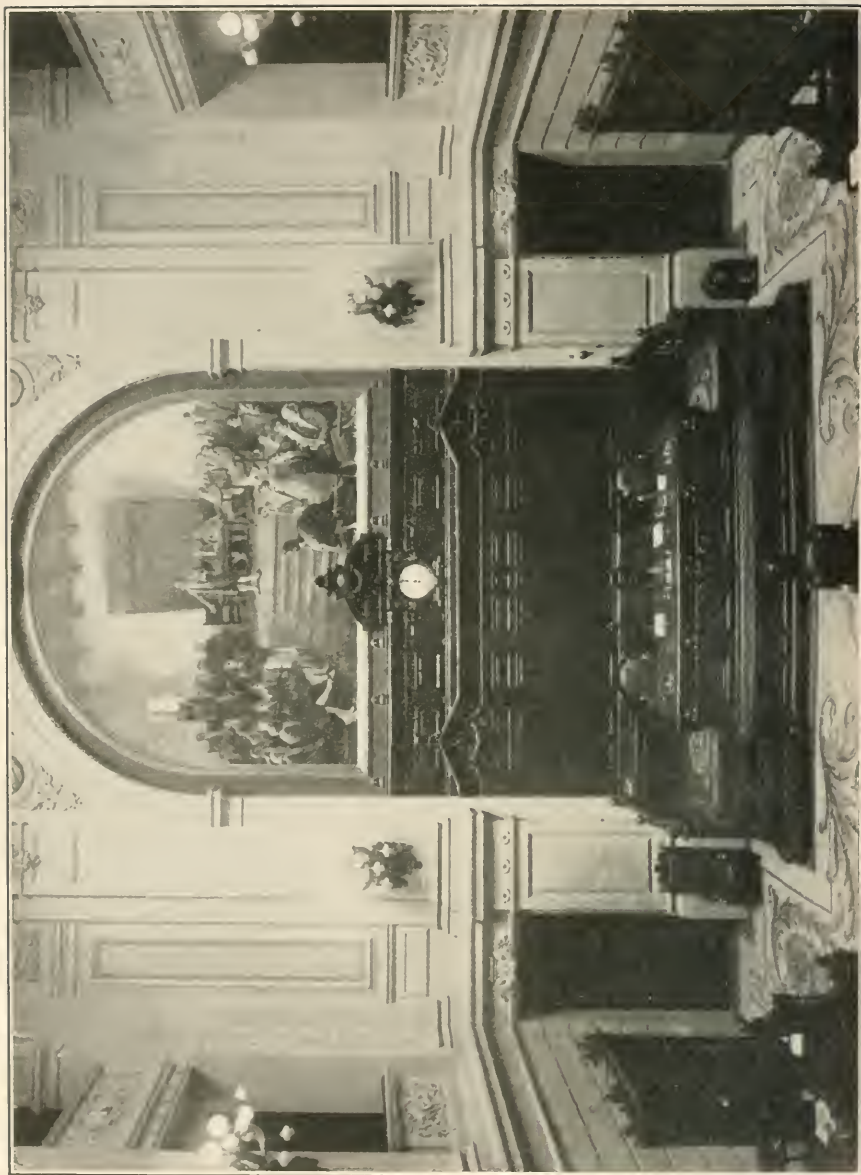
The Republic of Chile extends over more than thirty-eight degrees of latitude, from $17^{\circ} 57'$ to $55^{\circ} 59'$ south, stretching from the Sanm River to Cape Horn, occupying a long, narrow strip of land between the Andean mountain range and the Pacific Ocean, with a coast line of nearly 3,000 miles and an average width of only 90 miles. The Republic has a total area of 291,500 square miles, with a population of 3,249,279.

By reason of its peculiar shape easy access is afforded to the entire territory, and the exploitation of its vast mineral and other resources is both easy and profitable. As a mineral-producing country Chile is best known for her vast nitrate fields, from which the excellent fertilizer known as nitrate of soda is procured. Copper, gold, silver, and iron are also found. In the central and southern divisions of the Republic, agriculture, viticulture, apiculture, and fisheries thrive, while extensive forests furnish various kinds of cabinet and other woods.

HISTORICAL SKETCH.

FRANCISCO PIZARRO having conquered Peru, DIEGO DE ALMAGRO, one of his lieutenants, was dispatched with an army to the south to explore the country and take possession of it in the name of the King of Spain. He crossed the desert, which is now the great nitrate district, and after considerable difficulty managed to advance as far as the river Maule. There, however, he encountered the warlike Indian tribe of Araucanians and was obliged to retreat. Another expedition was sent by Pizarro in the year 1540, commanded by his quartermaster, PEDRO DE VALDIVIA, who was more successful than his predecessor, ALMAGRO, and although continually harassed by the Indians, was able to advance as far south as the present site of Santiago. Here he founded the city which is to day the capital of the Republic.

Although Spanish colonists in numbers came to Chile, but little progress was made, owing to the continual attacks to which the settlements were subjected from the indomitable Araucanians. These attacks continued until the year 1640 when the Spanish governor concluded a treaty with the Indians. By this treaty the river Bio-Bio was recognized as the boundary line between the whites and the Indians, and the aid of the latter was enlisted in defending the country against the invasions of the English and Dutch buccancers.



SENATE CHAMBER OF THE CHILEAN CONGRESS.

The Capitol of Chile is considered one of the handsomest public structures in South America. It is rectangular in shape, measuring 250 by 256 feet and occupying the entire square. The painting shown in this view represents the meeting of the First Congress of Chile, at which the Constitution was framed and adopted.

When, in the early part of the nineteenth century, the spirit of independence aroused the South American Continent, Chile in response, on September 18, 1810, deposed the Spanish authorities and created a provisional government.

Spain, however, was not willing thus easily to be deprived of its South American colonies and poured troops into Chile from Peru, the royalist stronghold. Finally, through the aid of the Argentine patriot and soldier, General SAN MARTÍN, the Spaniards were defeated at the battle of Maipú on April 5, 1818, thus practically ending the Spanish power in Chile.

General O'HIGGINS, who had distinguished himself in the war for independence, was appointed supreme dictator of the Chilean nation, and on October 23, 1818, a constitution which had been drafted by a committee appointed by O'HIGGINS was formally adopted by the people.

Among the great men who contributed to the final molding of the Republic in its present shape one of the greatest is Don DIEGO PORTALES, who was Minister of State under President PRIETO (1831-1841). PORTALES set the national finances in order and was largely responsible for the present constitution. The present incumbent, Señor Don PEDRO MONTT, was inaugurated on September 18, 1906, for a term expiring in 1911.



SR. DON PEDRO MONTT, PRESIDENT OF CHILE.

CONSTITUTION AND GOVERNMENT.

The Constitution of the Republic of Chile was formally adopted on May 25, 1833. Under it Chile has a single, republican form of government, with the customary division into legislative, executive, and judicial branches.

The President, whose term of office is five years, is chosen by electors, who, in their turn, are elected by direct vote. The President can not serve for two consecutive terms, and he may not leave the country during his term of office or for one year after the expiration of the same, except with the consent of the Congress.

He is assisted by a Council of State, consisting of 11 members, 6 of whom are appointed by Congress and 5 by the President, and who are directly responsible to the Congress. He is further assisted by a Cabinet of 6 ministers or secretaries, who, although appointed by the President, are likewise responsible to Congress, and may at any time be forced to resign, if Congress passes a vote of lack of confidence.

The legislative power is vested in the national Congress, consisting of a Senate and Chamber of Deputies, the former composed of 32 and

the latter of 94 members. Senators are elected by direct accumulative vote, in the proportion of one for every three deputies, for a term of six years, but the Senate is partially renewed every three years. Deputies are elected by direct vote, one for every 30,000 inhabitants or fraction thereof not less than 15,000, for a period of three years.

During the recess of Congress a standing committee consisting of 14 members, of which 7 are Senators and 7 Deputies, acts for the Congress and is consulted by the President upon all matters of importance.

The judiciary of the country consists of a national Supreme Court of 7 members, convening at the city of Santiago, 6 courts of appeals located at Santiago, Valparaiso, Tacna, Serena, Talca, and Concepcion, consisting of 5 members each, with the exception of those at Concepcion and Santiago, which have 8 and 12 members, respectively. There are also a number of minor courts located in the different provinces and districts.

The Republic of Chile is divided into 23 provinces and 1 national territory, which are again divided into departments, districts, and municipalities. The provinces are governed by an intendente appointed by the President of the Republic, while the departments are governed by a governor and the districts by inspectors. The popular element is represented by municipal councils elected by direct vote in each municipality.

Following are the provinces of Chile with their respective capitals:

Province.	Capital.	Province.	Capital.
Antofagasta.....	Antofagasta.	Malleco	Angol.
Aconcagua.....	San Felipe.	Maule	Cauquenes.
Atacama.....	Copíapo.	Nuble	Chillan.
Arauco.....	Lebu.	O'Higgins.....	Rancagua.
Bio-Bio.....	Los Angeles.	Santiago.....	Santiago (also capital of the Republic).
Cautin.....	Temuco.	Tacna.....	Tacna.
Chiloe.....	Ancud.	Talca.....	Talca.
Colchagua.....	San Fernando.	Tarapaca.....	Iquique.
Concepcion.....	Concepcion.	Valdivia.....	Valdivia.
Coquimbo.....	La Serena.	Valparaiso.....	Valparaiso.
Curico.....	Curico.	Magallanes (Territory).....	Punta Arenas.
Linares.....	Linares.		
Llanquihue.....	Puerto Montt.		

President, Señor PEDRO MONTT.

Minister of Interior, Señor EDUARDO CHARME.

Minister of Foreign Affairs, Señor RAFAEL BALMACEA.

Minister of Justice and Public Instruction, Señor JORGE

HUNEEUS.

Minister of the Treasury, Señor LUIS DEVOTO.

Minister of War and Marine, Señor ZARIO DAÑARTU.

Minister of Industry and Public Works, Señor MANUEL ESPINOSA JARA.

The President is allowed a salary of \$6,750 per annum and an allotment of \$3,500 for expenses.



CONCEPCIÓN AND THE BIO-BIO RIVER BRIDGE.

The city of Concepción is beautifully situated on the Bio-Bio River, the largest river in Chile, both in volume and in length. Near the city is the Bio Bio Bridge, seen in the background of this picture, which is 1,728 meters or 5,700 feet long.

CHILE IN 1908.

No better evidence characteristic of Chilean energy can be offered than the activity prevailing in the construction of communication facilities during the year 1908. The award of the contract for the completion of the Arica-La Paz Railway, the construction of the Chilean section of the Trans-Andine line to the mouth of the Cumbres tunnel, and the anticipated junction with the Argentine section in the near future, with its possible inauguration in 1910, as well as the activity prevailing in lesser construction work in the Republic, all foreshadow the national purpose to meet the increased opportunities to be offered the western coast of South America through the completion of the Panama Canal. Commercial transactions show a gain of more than \$4,000,000 in 1908 over those of the preceding year, for although importations declined, mineral and vegetable production notably advanced, with corresponding increased exportation. The harvest yield in the wheat-producing sections for 1909 is estimated at from 20 to 25 per cent increase over the preceding year. The crops of the country are being improved both in quantity and quality by the general application of modern methods of culture and irrigation, while greater interest than ever before is being manifested in the development of industrial life, and the manufacture of articles hitherto imported will be a development of the future.

Progress is being made on the port works of Valdivia, Corral, and Valparaiso. The government projects adopted for colonizing the unsettled sections of the Republic are giving satisfactory results.

The nitrate association, a continuation of the combination of producers entered into in 1900 and renewed in 1906, was dissolved on March 31, 1909, and its renewal for a further period was adversely decided upon.

FOREIGN AFFAIRS.

At the opening of the Chilean Congress on June 1, 1909, President MONTT addressed the National Assembly felicitating the Republic on the conditions prevailing throughout the country, stating that the efforts of the Government would be directed toward the maintenance of peaceful relations with other nations.

Pending questions with Peru are tending toward a final adjustment, various conventions having been signed in Lima for the reciprocal benefit of the two countries, while the construction of the Arica-La Paz Railroad, in consequence of an arrangement with the Bolivian Government, is progressing as a national enterprise. With Ecuador the long-standing friendly relations are maintained, and since the settlement of the boundary question with the Argentine Republic the common interests of both countries are being advanced in a spirit of



BAY AND HARBOR OF VALPARAISO, SHOWING THE CUSTOM-HOUSE.

concord and fraternity. A commercial treaty for the furtherance of these ends is under consideration between the two Republics.

The traditional friendship with Brazil continues unbroken, while intercourse with the other nations of Latin America is proceeding along lines of mutual esteem and fellowship.

With the United States an arbitration treaty has been signed, and relations with that country are maintained on a most cordial basis.

Possibly the most prominent event in the history of the year was the assembling of the Pan-American Scientific Congress at Santiago in December. The cordial welcome tendered the delegates from the countries of South America and the Great Republic of the North was an indication of the international spirit of comity which will control the relations of the Republic. This spirit is further manifested in the appointment by the Chilean Government of the Pan-American Committee to prepare for participation in the Fourth International Conference of American States, to be held at Buenos Aires in 1910.

FINANCE.

Notwithstanding adverse exchange conditions, the financial position of Chile continued satisfactory during 1908. This was largely due to the fact that duties and revenue are mostly collected on a fixed exchange value, so that the Government does not feel the brunt of the decline in exchange. The recent issue of \$15,000,000 of 5 per cent bonds, underwritten by Messrs. ROTHSCHILD, may be taken as a fair indication of the rapid readjustment of the financial status of the Republic.

The revenues of the Government for 1908 were \$51,108,000 and the ordinary expenditures amounted to \$48,825,000, a margin of receipts over expenditures of \$2,283,000 being shown. The duty on nitrate is the largest single item in the list of revenues.

Extraordinary expenditures comprised in the rebuilding of Valparaiso, railway construction, etc., were met by the loan for \$15,000,000, from which a balance of over \$8,000,000 was reported on hand at the close of the year.

Many notable changes have been made in the rates levied on imports by the Chilean Government. Sugar, boots and shoes, and various articles of textile manufacture are included in this tariff-rate reduction, which began to take effect progressively on July 1, 1908.

Duties collected on exports for the year are given at \$6,888,431.15 Chilean gold (18d.) and \$6,079,581.22 currency; import duties being reckoned as \$19,859 Chilean gold and \$5,895,404.41 currency.

The external debt on June 1, 1909, amounted to \$101,900,000 gold. The internal debt is represented by paper currency issued by the Chilean Government, which, if redeemed at its face value, would



VIEW OF THE PORT OF CORRAL, CHILE.

Corral is the seaport of Valdivia, which is situated about 12 miles inland on the banks of the Valdivia River. It is about 47 miles from Valparaiso by sea, and a port of commercial importance to southern Chile. Corral figured prominently in the early history of the country, having been fortified against explorers from Holland as early as 1615. It was named in honor of a prominent judge of the Spanish viceroyalty in Lima, Don José de Corral y Calvo, although the place was early known as Chivambo.

mean \$48,077,308 United States gold in excess of the value of the redemption bonds held to cover a portion of the currency, and would increase the public debt by \$24,038,654. To redeem the paper currency of Chile there is now on deposit in European and American banks about \$25,000,000 United States gold. These deposits are drawing interest and will be available for the purpose specified on and after January 1, 1910. On August 13, 1908, a law was promulgated imposing an export duty of 40 per cent on silver bullion assaying 0.5 or less.

At the beginning of the year, the savings banks of Chile held deposits aggregating \$19,966,774.61, representing 174,791 accounts, while on June 30, 1908, the number of depositors had increased to 198,119, and the deposits to \$22,876,141.65, a gain during a period of six months of 23,628 depositors and \$2,909,367.04 in deposits.

COMMERCE.

The foreign commerce of Chile in 1908 amounted to \$214,010,832 gold, an increase of \$4,617,489 over 1907. Of this amount imports figured to the extent of \$97,551,421, a loss of \$9,642,456, and exports \$116,489,411, a gain of \$14,259,945. The figures for 1907 are: Total trade, \$209,423,343; imports, \$107,193,887; and exports, \$102,229,466.

The principal articles of import that decreased in 1908, as compared with 1907, were, in the order of their importance, textiles, mineral, vegetable, and animal products, arms, ammunition, and explosives, perfumes, pharmaceutical and chemical products. The decrease in textiles was \$4,591,533; in mineral products, \$4,263,341; in vegetable products, \$3,159,535; and in animal products, \$858,470. The principal articles of import that increased in 1908, as compared with 1907, were petroleum, fuel, machinery, paper, and paper products. Oil and fuel increased to the amount of \$2,039,780, and machinery, tools, and apparatus \$1,912,427.

The exports for 1908 comprised mineral products, \$99,082,573; vegetable products, \$8,936,729; animal products, \$6,091,551; sundry products, \$473,664; wines and liquors, \$71,762; and coin, \$53,764.

The only item of export which decreased in 1908, as compared with 1907, was coin, \$548,485. Mineral products increased to the extent of \$10,741,533, and vegetable products to the amount of \$4,077,690.

The largest class of exports was mineral products, the principal items of which were: Nitrates, 20,336,122 quintals valued at \$85,-350,882; copper bullion and bars, 29,539,235 kilos, \$6,409,132; copper ore, 64,684,579 kilos, \$2,568,590; borate of lime, 31,740,650 kilos, \$1,621,947; iodine, 330,090 kilos, \$1,433,745; and 1,162,913 kilos of gold and silver ores valued at \$923,353.



THE ADMINISTRATOR OF A LARGE CHILEAN ESTATE.

The country estates of many of Chile's wealthy families cover extensive territory, and consequently require the services of a large force of overseers, who are subordinate to a general overseer, known as the "Administrador." He is responsible only to the proprietor and is expected to keep the property up to the highest efficiency, assign duties to the laborers, take cognizance of complaints, changes, and all other matters pertaining to the routine of a large establishment.

The countries of origin of Chilean imports were, in the order of values, Great Britain, Germany, United States, France, Belgium, and the Argentine Republic, and of destination of exports Great Britain, Germany, United States, France, Holland, and Belgium.

Important as the progress of the last few decades has been, Chile is a country with a still greater commercial future. The United States is recognized as England's foremost competitor for Chilean trade, notwithstanding the fact that Germany last year exported to Chile about two and one-half times more than did the United States. American goods are well received, and with the more progressive methods adopted by American exporters the coming decade may see gains as marvelous as those of the past ten years, which showed an increase of American imports into Chile of more than 430 per cent. For 1908, however, United States statistics note receipts of Chilean merchandise to the value of \$12,494,122, and exports to that country valued at \$5,373,911, the decline in both branches of trade being very great.

PRODUCTION AND INDUSTRIES.

Mining, due to the extensive working of the great nitrate of soda deposits, takes first place among the industries of the republic. The association which for many years has controlled the output and export of Chilean nitrate, the ranking product of the country, decided to discontinue operations as a company from April 1, 1909. The year's production was slightly in excess of the 2,000,000 tons fixed as the exploitable quota, being 42,847,267 Spanish quintals of 101 pounds, while exports also exceeded the estimate, figuring for 2,250,000 tons. The Government has appointed a commission for the collection and distribution of information bearing upon this industry so important to the national life, and will carry on an active propaganda in its behalf at home and abroad.

The official board of engineers has reported to the Chilean Government that there are undeniably in sight 4,483,000,000 quintals of nitrate in the deposits of the country. Antofagasta is credited with 4,103,000,000 and Tarapacá with 740,000,000 quintals. With an annual exportation of 35,000,000 quintals, this shows sufficient to supply the entire world's consumption for one hundred and thirty years. A previous estimate had fixed the amount at 1,603,000,000 quintals. The nitrate fields of South America exported in 1830, the first year they were worked, 8,348 tons of crude mineral.

Borate production is placed at 28,000 tons annually, with a valuation of \$4,000,000, and so extensive are the deposits that Chile could easily supply the whole world.

Sulphur production does not meet the necessities of the home market, although large deposits are known to exist in the Provinces of



BRIDGE SPANNING THE RIVER MAULE.

The River Maule is one of the largest of Chile's numerous rivers, rising in the Andes Mountains, in the lake of the same name, and emptying into the Pacific Ocean in latitude 35° 19' and longitude 72° 25'. The important town of Constitución is situated on the southern bank of the River Maule a short distance from its mouth in the Pacific Ocean.

Tacna and Coquimbo. Extensive deposits of sodium chloride are under development, notably those of Tarapacá, where a bed with a depth of 20 meters extends over a large area.

Guano has been preserved to satisfy national consumption, and the deposits are being worked in accordance with agricultural requirements.

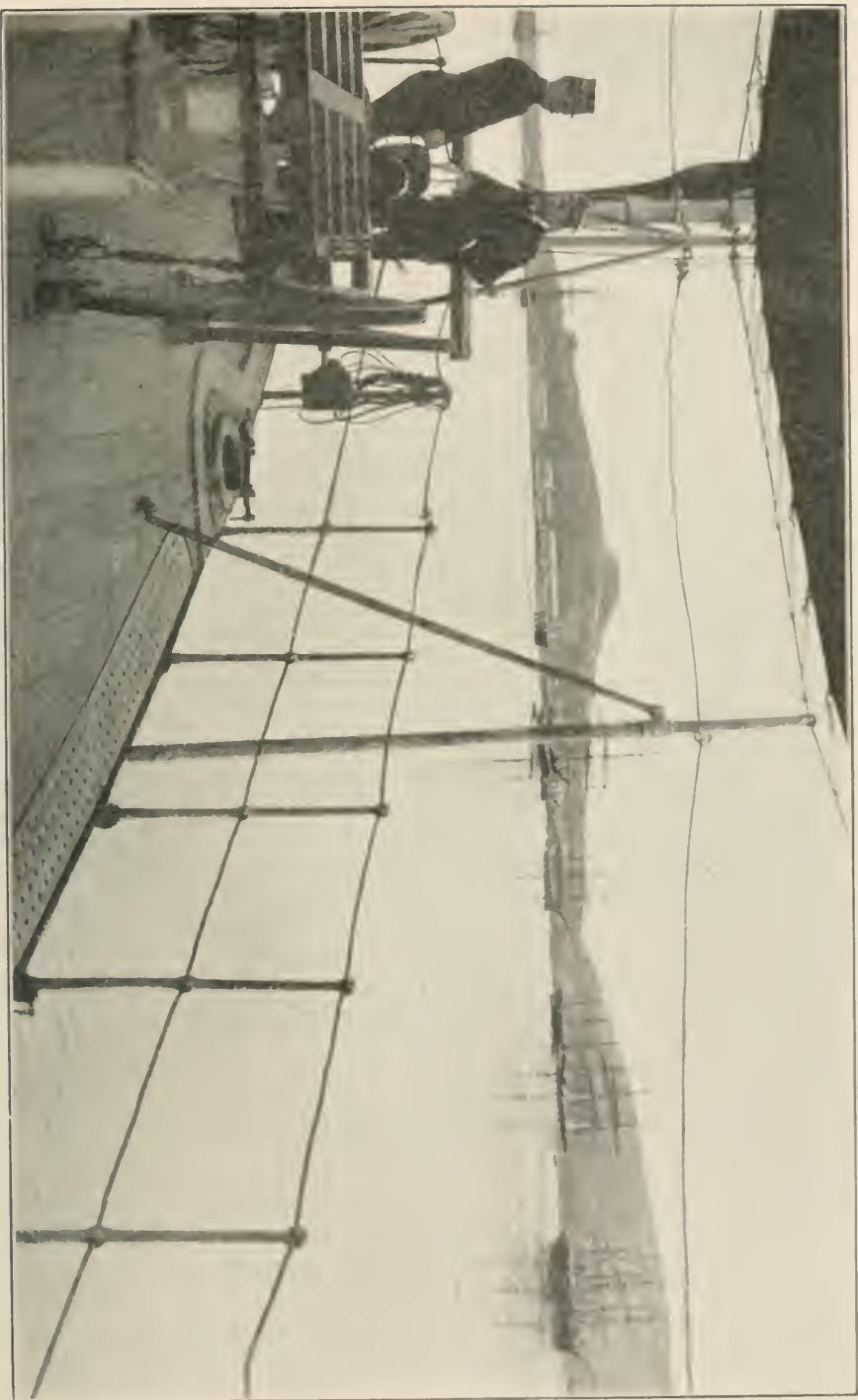
Sulphuric acid is produced in the Guayacan factory, the cataliptic system being employed, and the product being largely used for metallurgical purposes.

Coal mining, with a production of 900,000 tons, does not meet the country's requirement, and there is consequently a yearly importation of about 1,500,000 tons, mainly from Australia and England. A strong effort is being made to open up the very extensive coal fields of the Province of Arauco, south of Coronel. A much better grade of coal is found in the interior of that Province that has hitherto been mined in Chile for commercial purposes. It is said to be very good coking coal and suitable for use in the Chilean navy. The state railways of Chile consume annually from 350,000 to 400,000 tons of coal, of which about one-half is imported.

Gold mining is less actively carried on in late years than was formerly the case, although the exploitation of placer gold is increasing. These deposits have a great future, particularly in Cautin, Valdivia, and Magellan in the southern part of the Republic. Hydraulic and dredge systems have recently been installed, but as the work has been largely experimental the best results have not yet been attained. In 1907 the total output of gold was 1,500,000 grams, amounting in value to nearly \$1,000,000. Near Vallenar a gold deposit has lately been discovered assaying nearly 200 ounces of pure gold per ton. This is the old gold mining region of Chile.

Silver production, although it showed a slight advance in 1907, when the output amounted to 10,433 kilograms, does not receive the attention warranted by the known value of the deposits.

The mining energies of the country have been directed largely to copper, the production of which for 1908 was given as 35,000 tons of refined metal, as compared with 28,854 tons in 1907. The mean copper percentage of ores worked in Chile during 1907 was $9\frac{1}{2}$, a portion of which, with an average percentage of 20 per cent, is sent abroad as ore for treatment. The old mines of Teniente are being successfully worked and the development of workings in Collahuasi, Calama, and Chiquicamata, as well as the exploitation of certain lower-grade deposits, have occasioned a greater activity in copper mining. The greatest depth arrived at in the Republic is about 1,000 meters at the Dulcinea mine in Copiapo, but as a rule the operations are not carried on below 200 to 500 meters. Large copper mines and smelting establishments are located at Cerro Blanco, Carizal Alto, Jarilla, and As-



THE BAY AND TOWN OF TALCAHUANO, CHILE.

Talcahuano, a city of about 15,000 population, in the southern part of Chile, is an important shipping point and the naval base of the Republic. The harbor is well fortified and protected, providing anchorage for ships of the largest tonnage. The naval station contains a dry dock for the repair of war and merchant vessels. Talcahuano is the outlet for the enormous produce of the adjacent territory and the scene of great commercial activity.

tilla and other smelting works have recently been established at Chañarcillo in the Department of Copiapo, giving considerable impulse to copper mining in that district. All of these districts have rail connection with the nearest ports, thus affording easy means of transportation and communication.

Petroleum and natural gas have been discovered in the township of Carelmapu, in the Province of Llanquihue, about 500 miles south of Valparaiso. This discovery was made in the vicinity of a fairly rich gold mining district and not very far from the site of the extensive steel works being built near Corral.

The production of nonmetallic substances, such as lime, cement, chalks, marble, clay, etc., is sufficient for national needs, and earthen-



ICEBERG IN MAGELLAN STRAIT.

The route traversed by the trans-Atlantic liners includes the Strait of Magellan proper, Smyth Channel, Victoria, Sarmiento, Los Inocentes, Concepcion channels, Canal Ancho, and Messier Channel, covering in all 365 miles in length, the width varying from 2 to 25 miles, and being one of the most picturesque maritime routes in the world.

ware factories are in operation at Lota, and cement factories are successfully operated at La Calera and El Melon.

In accordance with the law of July 16, 1908, the Chilean mining code establishes three classes of mines, viz, (1) gold, silver, copper, and similar mines, the acquisition of which is free; (2) coal mines and mines containing similar fossils; and (3) mines containing minerals situated on uncultivated state or municipal lands. Gold, silver, copper, and similar mines pay a tax of \$3.50 per hectare, and coal mines and mines containing similar substances which formerly paid a tax of \$1.75 per hectare now pay \$0.07 per hectare.

Stock farming, and agriculture generally, represent important branches of Chilean industry, and though primitive methods are

employed on the average haciendas, modern machinery is coming into very general use in most districts. The United States supplies the greater part of this, the light, ornately finished implements of that country being regarded as exactly suited to Chilean conditions, but when strong and heavy machines, such as mowers, are required, they are generally obtained from Great Britain. During 1907 farm and dairy machinery to the value of \$1,556,884 was imported, of which the United States furnished \$925,912. The lumber industry in the far south of Chile also merits special attention at this time, as it is in an active stage of development.

Recent estimates by reliable authorities place the number of farms in Chile at about 50,000 and an assessed valuation of \$365,000,000 United States gold.

The harvest for 1908 was, in general, quite satisfactory. The north central portion suffered, but farther south the crops were better than usual, owing to the lighter rainfall, for as a usual thing that portion of the country has too much rain to produce the best results.

The wheat yield of over 25,000,000 bushels was about the same as for last year, when there was a surplus of about 5,000,000 bushels, and the quality in the main was superior. The barley crop was a little short of average, 5,500,000, but will be sufficient to meet home demands, while the fruit crop was good and the yield more than sufficient to meet the demand. Wine production was greater than in 1907. The vineyards of the Republic yield more than enough to supply the home needs, and the wines of the country, if properly exploited, have a bright future abroad.

The cultivation of flax is being encouraged by the Government and will, it is anticipated, form a valuable source of wealth for the nation. Some tobacco of very good quality is also grown in the country, but it will be some years before the supply will be equal to the demand for this article.

The future looks promising for the development of agriculture, as the Government is doing much to open up heretofore undeveloped sections of the country by building railways, assisting irrigation enterprises, bettering wagon roads, and encouraging immigration. The soil of Chile is very fertile, but its yield could be increased from 200 to 300 per cent by the application of more modern methods and the use of up-to-date machinery.

The pastoral industry of the country, as a result of better transportation facilities, is being developed. The Territory of Magellan, the southernmost political division of the Republic, is an excellent field for stock raising. This extensive territory, comprising about one-fourth of the total area of Chile, contains approximately 48,000,000 acres of land and owes its present prosperity principally to sheep raising and the working of its placer mines. Some idea

of the fortunes obtained from the former industry may be had when it is remembered that persons engaging in this occupation ten or fifteen years ago with a capital of from \$6,000 to \$10,000 are now the owners of flocks ranging from 60,000 to 90,000 sheep.

It is estimated that there were 1,873,709 head of sheep, 37,804 head of horned cattle, 23,888 horses, and about 1,000 hogs, mules, and goats in the Territory of Magellan in 1907. The wool exported from Punta Arenas in 1906 amounted to 16,500,000 pounds, valued at \$3,009,371. Practically all of the wool and hides shipped from southern Chile in 1906 went to Great Britain, Germany, and Bel-



PENGUINS ON SANTA MARTA ISLAND.

Santa Marta, a small island in the Strait of Magellan, a short distance from Punta Arenas, is one of the islands on which is found the penguin, a bird peculiar to the southern extremity of the American Continent and in the Antarctic regions. Antarctic explorers have frequently subsisted on the flesh of these birds for months, when their supply of food had been exhausted.

gium, the former country receiving about four-fifths of the entire output of these two products.

The raising of horses is also a profitable industry in the Territory of Magellan. The native horse is descended from Andalusian stock and is hardy, docile, intelligent, and vigorous and, it is said, is capable of doing more work with less food and care than the European or American horse. During the last twenty years the native stock has been considerably improved by the introduction of stallions from England, Germany, and France.

More attention is now being given to manufacturing industries in Chile than ever before. During the year 1908 shops and factories to the number of 2,829 were in operation in the 16 leading prov-

mces, aside from that of Valparaiso. Invested capital amounted to \$46,114,424 gold, and employment was given to 51,353 persons, of whom 32,795 were men, 14,114 women, and 4,114 children. The value of raw material consumed by these plants during the year was \$34,464,766.50, of which \$25,682,864.50 was domestic and \$8,781,902 imported. The output of the factories was valued at \$62,500,000, leaving a surplus applicable to labor, other expenses, and profits of \$28,036,233.50.

The motive power employed represented an equivalent of 26,000 horsepower, of which 10,600 horsepower was hydraulic. Water power commands much attention in the country by reason of the high price of coal and other fuel. The import duty on most manufactured articles, with the exception of machinery, ranges from 30 to 60 per cent.

The manufacture of shoes by machinery is increasing rapidly in Chile. A short time ago the first shoe factory employing machinery was opened at Valdivia, and now there are 22 well-equipped factories of various sizes located in different cities of the country. A large percentage of the shoe machinery in use in Chile is from the United States. France comes next, followed by England.

Several industries closely allied with and depending upon stock raising are now being exploited in the Territory of Magellan. In 1906 there were seven tallow factories in the territory, having a capital of \$155,125 and an annual output valued at \$704,405. There are two refrigerating plants, one of which, in 1907, exported 120,000 frozen wethers. The plant at Punta Delgada is the only meat-canning establishment now in operation in the territory. The capital invested is \$225,000. There are also stearin, soap, and salted-meat factories in successful operation.

Salmon is being introduced into the rivers in the southern parts of the country with very good results, but this new industry will not show any results for some years, and at present large quantities are being brought in direct from California and sold at reasonable prices, the customs duties on this article being about half what it is on lobsters. The latter are packed at the island of Juan Fernandez and are sold at very high prices, owing to the prohibitive duties levied to protect this so-called native industry. Fresh fish, of which there is an abundance, is daily offered in the markets, and oysters are plentiful in the southern part of the country, where they are canned for shipment to the northern provinces.

RAILWAY AND STEAMSHIP LINES.

The railways of the Republic in actual operation, under construction, or in contemplation on January 1, 1908, represented a total of 3,646 miles, of which 1,590 were in actual operation, 612 under con-

struction, and 1,444 miles projected. During 1908, 648 miles of government railways were constructed, of which 482 miles were built under government supervision and 165 miles by contractors employed by the Government. The construction of these lines represented an outlay of \$9,837,189.

According to the latest information from the most authentic sources, the entire Trans-Andine Railway system is to be completed and open to through public traffic not later than March, 1911. With reference to other important lines the following developments are reported:

On February 1, 1909, bids for the construction of the section of the longitudinal railway between Cabildo and San Marcos, covering a distance of 127.38 miles, were opened in the capital of the Republic and in the legations of Chile in Europe and the United States. The only bid received in Chile was that of a London company, the amount being £1,900,000 and the time required for the construction three years.

Tenders for the construction of the remainder of the railway from Arica to La Paz, a distance of 350 miles, were opened in the Department of Industry and Public Works, at Santiago, on March 1, 1909, the award being made to a British firm.

Owing to its Pacific coast line of nearly 3,000 miles, every part of Chile can be easily reached by water, there being no less than 59 ports in the country, 14 of which are the so-called major ports, which are ports of entry with custom-houses, and upon which the minor ports are dependent. The major ports are Pisagua, Iquique, Tocopilla, Antofagasta, Taltal, Caldera, Carrizal Bajo, Coquimbo, Valparaiso, Talcahuano, Coronel, Valdivia, Puerto Montt, and Ancud.

Punta Arenas, in the Straits of Magellan, is a free port, where merchandise may be imported and exported free of duty.

There are a number of navigable rivers, among which the Bueno, the Maule, the Cautin, the Bio-bio, and the Valdivia are the most important, being navigable for distances varying from 23 to 150 miles, the total navigable length of the Chilean rivers being 972 miles.

Chile can be reached either directly from New York by one of the three steamship companies maintaining direct lines: via Buenos Aires and the Cordillera, via Panama and the west coast, or via San Francisco and the west coast.

The New York and Pacific Steamship Company, the West Coast Line, and the Barber Line run steamers between New York and Chilean ports, employing from 41 to 55 days to Valparaiso, but having limited accommodations for passengers.

By way of Panama the trip is made with the Panama Railroad Company's vessels, having regular weekly sailings from New York, thence across the Isthmus, and from Panama by one of the lines ply-

ing on the west coast, it being possible to make the trip by this route in 35 days, at a cost of \$204 for first-class passage.

The steamship lines plying regularly along the Pacific coast are: The Pacific Steam Navigation Company, calling at all the major



A MOUNTAIN SCENE ON THE TRANS-ANDINE RAILWAY.

The scenery along the line of the mountainous sections of this railroad is as fine as can be found anywhere in the world. The higher peaks of the snow-covered cordillera are constantly in view and an ever-changing panorama of mountain, valley, and gorge is presented to the traveler.

ports of Chile; the *Compañía Sud-Americana de Vapores*, calling at all the Chilean ports; the Kosmos Line, plying between San Francisco, California, and Hamburg, Germany, calling at all the more important ports of the west coast, and the *Compañía de Nave-*

gación y Diques Secos Peruanos, which has recently inaugurated a fast service between Panama and Valparaiso, Chile. By a decree of September 25, 1908, the Chilean Steamship Company was authorized to operate in the Republic. This company has a capital of \$625,000, with headquarters at Valparaiso.

Maritime transport increase is indicated by the addition of 35 vessels, with 17,740 tons burden, during the year, the total merchant marine now consisting of 172 ships and 98,722 registered tons.

During the year 1908 steamers to the number of 387 and 18 ships touched at Valparaiso, discharging 715,304 packages and loading 762,900. Packages to the number of 2,500 were reembarked and 1,874 sold to pay storage charges.

The Government has 28 bridges of different types under construction, at a total cost of \$1,017,510 United States gold, with 31 more under consideration at a cost of \$1,390,103 United States gold.

POSTS AND TELEGRAPHS.

The postal movement for 1907 covered 78,016,179 pieces of mail matter which, although less than the estimate made, is greater by nearly 1,000,000 pieces than the year preceeding. Parcels post values were \$1,000,750. Of the 323 telegraph offices in the Republic, 10 were added during the year. The telegraph offices transmitted 2,035,291 messages for domestic and 83,547 for foreign service. During the year the line between Iquique and Zapiga was opened and a new communication between Olera and Santiago. Telegraph and telephone lines are respectively about 11,836 and 8,000 miles in extent.

The Government has erected wireless stations on the island of Juan Fernandez, over 400 miles from the coast, and at Valparaiso, which have been most satisfactorily operated. Plans for wireless connection with the Territory of Magellan were completed.

At the beginning of 1909 there were 15 industrial schools, giving instruction to about 3,300 pupils. Of these schools 8 were located in Santiago and the others in the various provinces. Much interest is being taken in these schools and their work is telling for good in the industrial development of the country. They are well equipped with up-to-date appliances, much of which is from the United States.

There are only three foreign life insurance companies doing business in Chile, two from the United States and one from Canada. In 1907 the United States companies did a business of \$293,433 and paid losses amounting to \$127,440, showing a profit of \$165,993.

PUBLIC WORKS.

The Government has under construction buildings valued at \$4,895,273 United States gold, all of which are scheduled for completion before the close of 1909.

In a special message to the Federal Congress the President of the Republic of Chile has recommended that \$800,000 be appropriated for the purpose of celebrating the centennial of Chilean independence in 1910. The committee appointed to draft a programme recommends that the exhibit of arts and crafts be held in the new Palace of Fine Arts; that the agricultural exhibit take place at the Quinta Nacional; and that the exhibit of industry, commerce, and education be held in a building to be constructed for the School of Mines in the Quinta Normal. The committee recommends the erection in Cousiño Park, Santiago, of the Centennial Building, in which the exhibition of the Historical Museum of the Republic will be held.

In honor of the occasion the opening of several new streets and avenues is recommended, as is also the erection of a statue to CAMILO HENRIQUEZ, the founder of Chilean journalism. In addition to the foregoing celebration and erection of buildings, to take place in the capital, the committee recommends construction of public buildings in various sections.



